

FACTORS ASSOCIATED WITH UNFAVORABLE TREATMENT OUTCOMES AMONG RELAPSE SMEAR POSITIVE PULMONARY TUBERCULOSIS (PTB) PATIENTS IN SELANGOR FROM 2015 TO 2019 : A REGISTRY BASED RETROSPECTIVE COHORT STUDY

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ABSTRACT

INTRODUCTION: Smear-positive Pulmonary Tuberculosis (PTB) patients are often treated effectively with WHO 6-month standard regimes. However, they may still develop a relapse episode that can be either due to reactivation or a true relapse because of reinfection. In Selangor, Malaysia, there has been a significant increase in relapse TB, with a high percentage of unfavorable treatment outcomes among this group. **OBJECTIVE:** Our study aims to identify factors such as sociodemographic, TB clinical profiles, and comorbidities associated with unfavorable TB treatment outcomes. Understanding these factors is crucial to providing feedback to TB control programs, thus helping to strategize treatment strategies and improve overall TB control program. **METHODOLOGY:** This secondary data registry-based retrospective cohort study was conducted among relapse-smear-positive PTB patients registered from 2015 to 2019 in Selangor. Sociodemographic, TB clinical profiles and comorbidities data were extracted and assessed. The factors associated with unfavorable TB treatment outcomes among relapse smear-positive PTB patients were identified by using logistic regression analysis. **RESULTS:** A total of 582 smear-positive PTB patients were included in this study. Unfavorable TB treatment outcome was observed in 30.24% of the patients. Factors associated with unfavorable TB treatment outcome were urban localities (AOR 2.09 (95% CI: 1.22, 3.57)), not doing routine sputum AFB examination at 5 months and before treatment completion (AOR 1.85 (95% CI: 1.17, 2.91)). Additionally, Chinese ethnicity (AOR 0.34 (95% CI: 0.17, 0.67)) and receiving treatment in government facilities such as government hospitals and government primary health clinics were noted to be protective factors with AOR 0.03 (95% CI: 0.01, 0.11) and AOR 0.01 (95% CI: 0.01, 0.03) respectively. **CONCLUSION:** The significant rate of unfavorable treatment in relapse smear-positive PTB patients highlights the crucial need to adhere to routine sputum monitoring and foster collaborations between the public and private sectors.

Keywords: Relapse, Recurrent, Retreatment, Tuberculosis
